

Office Action Summary

Application No.
09/108,705

Applicant(s)

Motoyama

Examiner
Madeleine AV Nguyen

Group Art Unit
2622



☒ Responsive to communication(s) filed on Dec 20, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 37-48 and 70-77 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 37-48 and 70-77 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

This communications is responsive to amendment filed on December 20, 2000.

Applicant amends claims 37, 43 and 74.

Response to Applicant's Remarks

1. Applicant remarks that Allen et al does not suggest or disclose “diagnosing a first device by a second device which has an ability to diagnose different types of devices.”

In the Background of the Invention, Allen et al teaches that “in large business and government offices which use a large number of reproduction apparatus, it is desirable for cost allocation purposes to keep a central record of the total number of copies produced by all of the reproduction apparatus, and also of the number of copies produced in each section or division of the office, some of which may have access to two or more reproduction apparatus ...” (Col. 1, lines 30-41), and “In a large organization having many sections, each having access to many reproduction apparatus, a key counter for each section must be provided to each reproduction apparatus ... “ (col. 1, lines 59-65). Thus, the purpose of the invention is to remotely diagnose a plurality of reproduction apparatuses and not only one reproduction apparatus. Since a reproduction apparatus can be a copier, a printer, a facsimile machine having a printer since they can reproduce or duplicate documents, Allen indirectly teaches the diagnosis of different types of devices or business office devices.

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2. Applicant remarks that Allen fails to teach the step of parsing “using the second information which has been determined to determined a format of the second portion whereby the second portion is parsed.”

The reproduction apparatus 1 in Allen et al can be connected to a computer through different communication lines such as public phone lines through modem 4 or data communication line through RS-232 interface or other similar computer system interfaces. Thus, according to different communication lines, the system in Allen uses different protocols and different format signals. For instance, Allen teaches that when the data communication line is through RS-232 interface (digital communication), the standard RS-232 protocol is used, and when the data communication line is through the modem (analog communication), modem 4 has to convert the digital output by the machine control and diagnostic circuitry 2 into modulated analog signal capable of being transmitted over a public phone lines. Thus, Allen teaches the uses of different protocols according to different communication lines. Allen further teaches that in the digital communication, RS format signals are used while in the analog communication, the modem 4 converts the RS-232 format signals into analog signals suitable for transmission (col. 3, line 24 - col. 4, line 7). Thus, Allen indirectly teaches the uses of different protocols and different formats based on different communication lines.

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3. Applicant remarks that Hemmady fails to teach or suggest the step of parsing “using the second information which has been determined to determine a format of the second portion whereby the second portion is parsed.”

In Fig.20, Hemmady teaches data packet message format with different portions having different information such as protocol identifier (624, 638), group identifier (616), group name (618) considered as first portion, packet length (622, 636), UWU length (634), type of service indicator (623), initial byte number (639), destination and source location (612, 614, 642, 644), header check sequence (626) considered as second portion for determining a format of the packet (col. 62, lines 15-49). Hemmady further teaches different protocol identifiers for different protocols and different link format (col. 42, line 53 - col. 44, line 23; col. 51, lines 47-67; col. 52, lines 43-47; col. 57, line 39 - col. 58, line 51). Hemmady further teaches in Fig. 2 a different types of user devices including different business office devices connected to MAN (metropolitan area network), (col. 3, lines 23-36; col. 5, lines 9-63). Thus, Allen in view of Hemmady teaches the claimed subject matters in claims 37, 43 and 74 since Hemmady supports the teachings of: the first device can be different types of devices including different business office devices, the uses of different protocols and packet formats depending to different communication lines, and the parsing of a second portion for determining the format of the transmitted information.

4. The rejection of amended claims 37, 43, and 74 are modified according to the amendment.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skills in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 37- 48, 70-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen et al (US Patent No. 5,394,458) in view of Hemmady (US Patent No. 4,872,157).

Concerning claims 37, 43, 74, Allen et al disclose a reproduction system and method (Figs. 1-2) of diagnosing a first device (1 and 6) by a second device (5), which has an ability of diagnose different types of devices, wherein the first device includes a communication interface 6 for transmitting information from a reproduction apparatus 1 the second device (an administrative device 5) which identifies a type of the reproduction apparatus 1 (type of first device), initializes a status database 20, and selects a symptom to diagnose the reasons and probabilities (condition) of the reproduction apparatus 1, (col. 5, lines 7-36). The information is transmitted from the reproduction apparatus to the administrative device 5 via a telephone network and a modem 4, or a standard RS-232 protocol (col. 3, line 30 - col. 4, line 7). The system and method comprises

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means or steps for transmitting, through a communication line (public phone lines or data line, Fig.1), first information (col. 4, lines 56-59) from the first device (1, 6) to the second device 5; receiving by the second device 5, the first information which has been transmitted; determining by the second device 5, second information (such as data related to the reproduction apparatus use, feature utilization of the reproduction apparatus) utilized by the first device, wherein the second information is a first portion of the first information; parsing, by the second device, a second portion of the first information (such as the error history and billing data) using the second information which has been determined, wherein the second portion is different from the first portion; and diagnosing a condition of the first device by the second device using the second portion which has been parsed.

Allen does not directly teach that the communication lines between the first device and the second device are communication channel. However, Allen teaches that "communication may be effected either directly via the RS-232 interface 3 or via the telecommunication modem 4." (Col. 3, lines 32-34). RS-232 interfaces includes a serial data port and data line with additional input and output control and/or status lines. Modem 4 converts a digital signal into a modulated analog signal capable of being transmitted over a standard (public) non-dedicated telephone line (col. 3, lines 36-50). Thus the first device transmits information to the second device through a communication channel of the data line connected to the RS-232 or the public phone lines connected to the modem 4 wherein both of the communication lines are equivalent to communication channels. In addition, Allen does not specifically mention that the first

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information includes first portions and second portion. However, since Allen teaches the first information sent from the first device to the second device includes a plurality of different information which can be divided into 2 portions wherein the first portion can be considered as data related to the reproduction apparatus use, feature utilization of the reproduction apparatus since the first device utilizes these information for operating the reproduction apparatus, and the second portion can be considered as the error history and billing data for the second device to diagnose the condition of the first device. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to consider the communication lines in Allen are communication channels since the first and second devices transmit and receive information through these communication lines, and the received information is divided into two different portions for the second device to determines the information utilized by the first device through the error history and billing data equivalent to the first portion and the information for diagnosing a condition of the first device through the error history and billing data equivalent to the second portion as claimed.

Allen does not directly teach that the first device (1, 6) includes different business office devices. However, in the Background of the Invention, Allen et al teaches that “in large business and government offices which use a large number of reproduction apparatus, it is desirable for cost allocation purposes to keep a central record of the total number of copies produced by all of the reproduction apparatus, and also of the number of copies produced in each section or division of the office, some of which may have access to two or more reproduction apparatus ...” (Col. 1,

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lines 30-41), and “In a large organization having many sections, each having access to many reproduction apparatus, a key counter for each section must be provided to each reproduction apparatus ... “ (col. 1, lines 59-65). Thus, the purpose of the invention is to remotely diagnose a plurality of reproduction apparatuses and not only one reproduction apparatus. Since a reproduction apparatus can be a copier, a printer, a facsimile machine having a printer since they can reproduce or duplicate documents, Allen indirectly teaches the diagnosis of different types of devices or business office devices. In addition, Hemmady teaches, in Fig. 2, different types of user devices including different business office devices connected to MAN (metropolitan area network), (col. 3, lines 23-36; col. 5, lines 9-63). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the teaching of a device connected to a different business office devices in Hemmady to the system in Allen et al since Allen indirectly teaches that the diagnostic device 5 can be connected to different types of reproduction apparatus which are considered as different business office devices due to the fact that the first device (1, 6) can have different communication lines connecting to different types of devices.

Allen does not directly teach that the parsing of the second portion is for determining a format of the second portion. However, the reproduction apparatus 1 in Allen et al can be connected to a computer 5 through different communication lines such as public phone lines through modem 4 or data communication line through RS-232 interface or other similar computer system interfaces (Fig.1). Thus, according to different communication lines, the system in Allen

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uses different protocols and different format signals. For instance, Allen teaches that when the data communication line is through RS-232 interface (digital communication), the standard RS-232 protocol is used, and when the data communication line is through the modem (analog communication), modem 4 has to convert the digital output by the machine control and diagnostic circuitry 2 into modulated analog signal capable of being transmitted over a public phone lines. Thus, Allen teaches the uses of different protocols according to different communication lines. Allen further teaches that in the digital communication, RS format signals are used while in the analog communication, the modem 4 converts the RS-232 format signals into analog signals suitable for transmission (col. 3, line 24 - col. 4, line 7). Thus, Allen indirectly teaches the uses of different protocols and different formats based on different communication lines. In addition, Hemmady, in Fig.20, teaches data packet message format with different portions having different information such as protocol identifier (624, 638), group identifier (616), group name (618) considered as a first portion, packet length (622, 636), UWU length (634), type of service indicator (623), initial byte number (639), destination and source location (612, 614, 642, 644), header check sequence (626) ... considered as a second portion for determining a format of the packet (col. 62, lines 15-49). Hemmady further teaches different protocol identifiers for different protocols and different link format (col. 42, line 53 - col. 44, line 23; col. 51, lines 47-67; col. 52, lines 43-47; col. 57, line 39 - col. 58, line 51). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to combine the teaching of the data packet message format in Hemmady to the transmitted information through the

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communication lines in Allen et al since Allen et al indirectly teaches the uses of different protocols and the conversion to different format signals according to the transmission through different communication lines.

Concerning claims 38-42, 44-48, 75-77, Allen further teaches the means or step of determining by the second device a device identification for the first device (100-102, Fig.2; col.5, lines 18-25); selecting an input format of data stored in a data base and selecting an input format for a facsimile machine and copier machines (102-103; col. 5, lines 21-26).

It is noted that the first device (1, 6) is considered as a copier machine since it includes a reproduction apparatus 1, and a facsimile machine (1, 6) since it can communication with other remote apparatus through communication lines by the use of the communications interface having a modem 4. In addition, the fact that Allen teaches that the first device can communicates with the second device through different protocol such as RS-232 protocol, or modem protocol inherently teaches that the communication system can communication with different devices having different protocols (col. 3, lines 24-62).

Concerning claims 70-73, Allen fails to teach that the identification of the type of the first device is a protocol identifier including a header format. Hemmady et al discloses a data processing system for connecting a plurality of inlets to a plurality of outlets comprising a first plurality of terminals connected to one of the plurality of inlets for controlling the storage of header information of each data packet and a second plurality of terminals for processing the header information and queuing data packets destined for a common outlet. Fig.20 shows a

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message format wherein the header 610 consists of the destination address 612, the source address 614, the group identifier 616, group name 618, the type of service 620, a type of service indicator 623, a protocol identifier 624. The header 610 is followed by a header 630 to process message fragmentation. This header 630 includes the protocol identifier 638 for identifying the contents of the internal protocol which is the header of user data 640. Finally, user data 640 may be preceded for appropriate user protocols by the identity of the destination port 642 and source port 644 (col. 62, lines 15-49). Hemmady et al further teaches that a header format of data is contained in the device identification for the first device, and the second device determines the header format of data contained in the device identification by selecting the header format of data from a protocol identifier data base (col. 62, lines 15-49). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the protocol identifier with a header format as taught in Hemmady et al in the transmitted information from the first device to a second device in Allen in order for the second device to determine the protocol identifier utilized by the first device since both Allen and Hemmady teach the transmission and reception of data packets from and to different devices thereby permitting both on-site and remote communication with a diagnostic and administrative device for the purpose of recording apparatus usage, feature utilization, and performing diagnostic routines on reproduction apparatus.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Ogura (US Patent No. 5,512,979) discloses a system for remote diagnosis of image forming apparatuses including intelligent communications control for data.

b. Hart et al (US Patent No. 5,832,264) teaches an object-oriented communications framework system with support for multiple remote machine types.

c. Wallace (US Patent No. 5,528,748) recites a system for testing circuits of digital data telecommunications networks providing selected physical and protocol testing on an integrated basis.

d. Han (US Patent No. 5,226,074) discloses a remote control method for interactively diagnosing and controlling a state of a remote facsimile system.

8. Applicant's arguments with respect to claims 37-48, 70-77 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Madeleine Anh-Vinh Nguyen whose telephone number is (703) 305-4860.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Box AF
Commissioner of Patents and Trademarks
Washington, DC 20231

or faxed to:

(703) 308-9051 (for formal communications intended for entry; please mark "EXPEDITED PROCEDURE")

(703) 308-9051 (for informal or draft communications, such as proposed amendments to be discussed at an interview; please label such communications "PROPOSED" or "DRAFT")

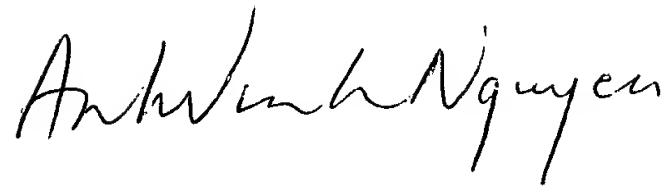
or hand-carried to:

Crystal Park Two
2121 Crystal Drive
Arlington, VA.
Sixth Floor (Receptionist)

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A handwritten signature in black ink, reading "Anh-Vinh Nguyen". The signature is written in a cursive, flowing style with a large initial 'A'.

Madeleine Anh-Vinh Nguyen
Primary Examiner
Art Unit 2722
February 1, 2001